

FRENCH NORM INDUSTRIES: KNOWLEDGE REVIEW AND REGULATIVE IMPLEMENTATION PROSPECTIVES

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Articles relative to natural radioactivity exposures of the Basic Safety Standards Euratom 96/29 (BSS) were transposed in French regulations in the Public Health Code and the Labour Code and implemented in the interministerial Order of the 25th May 2005 relative to activities using naturally occurring radioactive materials (NORM) not used because of their radioactive properties. It defines, in particular, the list of categories of professional activities concerned:

- Coal combustion in thermal power stations;
- Treatment of tin, aluminium, copper, titanium, niobium, bismuth and thorium ores;
- Production of refractory ceramic and glassmakings, foundry, steel industry and metallurgy activities using refractory ceramics,
- Production or use of compounds containing thorium;
- Production of zircon and baddeleyite, and foundry and metallurgy activities using zircon and baddeleyite;
- Production of phosphate fertilizer and manufacturing of phosphoric acid;
- Treatment of rare earth and production of pigment containing rare earth;
- Treatment of underground water by filtration for the production of:
 - o water for human consumption;
 - o mineral waters;
- Spas.

French regulations require industrials to assess the dose for workers and the population.

Radioactive measurements conducted to assess the exposure of workers and the population allows to drawing an overview of radioactivity in raw material, by products and waste for each category of activities previously defined.

The way of dose assessments proposed on each study was analysed to evaluate their accuracy and identify categories of activities liable to exceed the value of 1 mSv.yr⁻¹ for workers or members of the public.

In September 2009, more than 80 studies were produced and addressed to the Nuclear Safety Authority (ASN) and the Institute for Radiological Protection and Nuclear Safety (IRSN). A critical review of those studies, hold at the same time with on site inspections, was carried out to check the enforcement of the regulations and to put forward an update of the national regulations. Moreover, the consequences of the application of the new requirements proposed for NORM industries, as part of the Euratom 96/29 BSS revision, were studied.